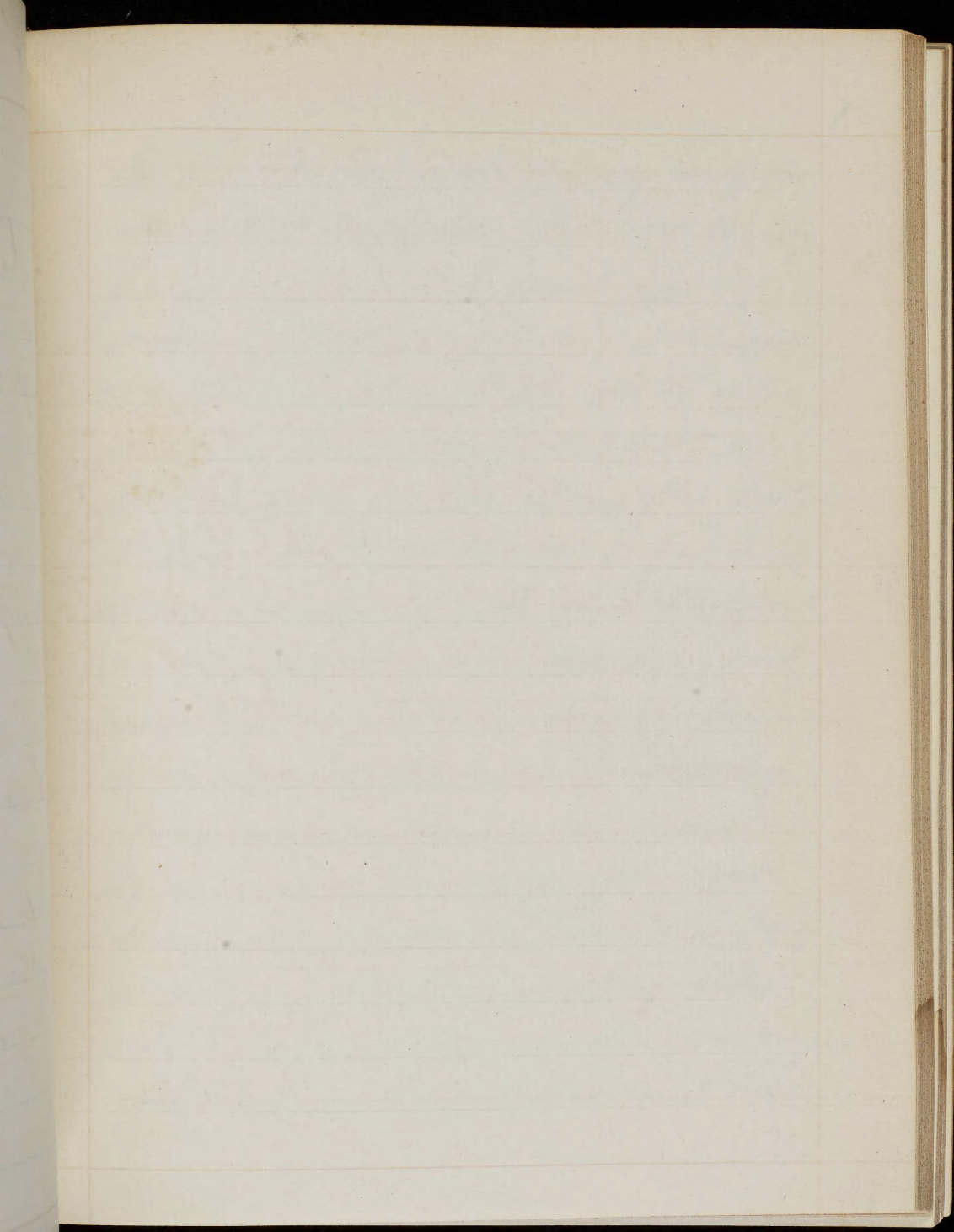


New Essay On
Diseases of the Chest
Respectfully submitted to the
Faculty of the
Homoeopathic Medical College
of
Pennsylvania

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Eighteen hundred & fifty four

By
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In presenting myself to the very worthy Faculty of the Homoeopathic College of Pennsylvania as a candidate for the degree of Doctor of Medicine; it cannot be expected that I should be able to offer anything new connected with our beloved science. The stand point which I have hitherto occupied has been comparatively humble, and the opportunities afforded me for observation and investigation, have necessarily been in a considerable degree limited. My studies having been confined to the more general principles of medical science, no particular ^{branch} has claimed my attention, but the initiatory steps which I have taken under your very able teachings have introduced me

to a field of inquiry, boundless in its extent, and happy and honorable in its rewards. The more I observe the practical effects of the law "*Similia Similibus Curantur*" as applied to the cure of disease; the more am I impressed with its perfect adaptation to accomplish the end proposed: and to do something, towards adorning and embellishing the great temple of Medical Science, whose foundation was laid by the immortal Hahnemann, and his collaborators, shall be among the loftiest purposes of my life.

The subject I have chosen as the theme of my essay, is the symptoms and sensible signs of diseases of the chest; affections which are not only insidious and inveterate in their

character, but formidable in their results. The great importance of understanding the nature of thoracic diseases, will be evident when we consider the great proportion of diseases of this class that go to swell the aggregate of human suffering. In ascertaining the nature of these diseases there are three distinct heads under which we shall attempt to describe them. First general symptoms; by which is meant the effect of local diseases on the constitution, or the constitutional symptoms. Thus one of the most important of this class is the existence of fever, manifested by the presence of a hot skin, disturbed state of the pulse &c. Again the particular form of fever is an important

guide. For instance in different species of affections, different degrees of fever will exist. In ordinary inflammation of the bronchial membrane but little fever will be present, and this generally subsides in a very short time, while in pneumonia there is much more febrile excitement, with pain in the chest, cough, rusty expectoration, and dyspnoea. In inflammation of the pleura there is usually a great deal more ~~present~~ than in either of the other two. Again the fever will not always bear the same character, sometimes it is of the kind denominated continuous fever, where the chills which usher it in, subside after a day or two, and it then continues

without intermission until the
convalescence of the patient. This kind
of fever is generally found accompan-
ying active inflammation of the
thoracic organs, sometimes in bron-
chitis, but more particularly in pneu-
monia and pleurisy. Again there is
sometimes present a very irregular
form of fever, with more or less of
chills during the day, followed at
night by heat of skin, and towards
morning subsiding into profuse pers-
piration. This is hectic fever, and
indicates suppuration of the lungs,
or profound deep seated irritation.

In ordinary cases of pleurisy the pati-
ent will always be hot, but more so
at night than at any other time; this

will subside after a time, and if the recovery is perfect will not return. But occasionally after a lapse of some time, the patient will again experience rigors with heat and night sweats, which indicate a tendency to suppuration, or that the matter which was thrown out during the early period of inflammation, has been converted into pus, and thus fills up the pleura. Again in phthisis and tubercular difficulties, great emaciation and loss of strength are the first symptoms; but in cases of bronchitis these symptoms do not exist, and thus they become very important in establishing a correct diagnosis in thoracic diseases. There is another set of symptoms

which differ from the constitutional. These are the rational symptoms; perversions of the healthy or physiological action of the thoracic organs. Among the most prominent of these is cough, which is induced by irritation in some part of the air passages. Cough may be either a nervous affection, or the result of irritation, or it may be a secondary affection, caused by the irritation of some disease in a remote organ. The kind of cough thus becomes an important consideration, and as a general rule the louder and more striking it is the less dangerous it is to the patient. A trifling insignificant cough is much more serious than a loud

and striking one. Thus in the early stages of phthisis, there is but a trifling cough which is hardly recognised by the patient or his friends. In pneumonia and pleurisy we have but a low suppressed cough, while in ordinary bronchitis which is but a mild disease, the cough is loud and noisy. So it is with the expectoration, sometimes it is transparent, at others viscid and opaque, or thin and bloody, and thus it becomes a valuable aid in the investigation of disease. A rusty expectoration denotes inflammation of the lungs, if blood is mingled with the evacuated portion we may be almost certain of the existence of tubercles. Among other

rational symptoms may be included respiratory movements of the chest. In a healthy adult, when free from excitement, and perfectly quiet as during sleep the inspiratory and expiratory movements each average about eighteen in a minute. In children they are more frequent. In a child from six months to a year old they will average twenty four or twenty six times in a minute. But they are liable in both adult and child to be accelerated from various causes; And when this acceleration is present in connection with other symptoms, it often indicates severe disease of the lungs. The par-

ticular kind of acceleration is not
 alone diagnostic, but also the part-
 icular ^{kind of motion} ~~thus~~ one side of the chest
 may move ^{naturally} very rapidly, and the ~~other~~ ^{other} not. This would show that
 there was effusion in one side
 and not in the other. In other
 affections the respiration, instead
 of becoming accelerated, becomes
 irregular, this generally is connected
 with a low and exhausted state of
 the system, as in typhoid fever,
 and hysteria, where it is sometimes
 slower than usual, and at other
 times more rapid. Where the irreg-
 ularities in the respiration take place
 the general inference to be deduced
 is that there does not exist any

serious disease of the lungs, for were there any permanent cause present to affect the respiration the effect would be permanent. We now come to a third class ^{signs} which are equally as important as the previous ones. these are denominated the physical signs, and are explained by physical laws alone. The same laws of physics that apply to dead matter, and that have a like influence over animal matter without any special reference to the physiological condition of the organs. In examining patients it is best to strip them. This is always feasible with male patients, but not so with females, who may be covered with a loose gown, through which

the examination may be conducted; but with male patients it is always best to expose their chests, in order to observe if there is any change of shape to be discovered. This is very important, for we may find one side larger than the other, which is indicative of an accumulation of fluid there; or if one side be unnaturally small it may be owing to previous pleurisy, in which the effusion has been absorbed, and the side has become contracted, owing to the adhesions which bind down the lung. Again in emphysema a part may project in consequence of the dilatation of the lung, so an effusion into the pericardium may cause a bulging.

From the artificial course of life pursued in cities, we will find that among those who reside in them few have symmetrical chests. They generally have an enlargement about the precordia, and sometimes a slight curvature of the spine. These deformities being the effects of habits, must not be considered in connection with the question now under discussion. The most marked cases where these deformities are present, are in rickets, where there is no pulmonary trouble. One way of distinguishing these deformities from those caused by internal pressure, is; where the bulging is caused by ~~in~~ curvature of the spine, the intercostal spaces

are depressed, but where it ^{is} caused by internal disease they are pushed out more than the ribs. This is a reasonable mode of distinguishing these different varieties. Another physical sign connected with the chest, is the resonant sound of its ~~fractures~~ ^{fractures}, which is ascertained more certainly, by percussion. The elasticity of the ~~fractures~~ ^{fractures}, varies at different periods of life; it is greater in youth than in age, when the cartilages have become more ossified, and of course less yielding. The natural resonance of the chest is only to be recognised by long practice; and to determine it we resort to percussion. The chest being filled with air, and having elastic

parietes will of course resound on percussion. There have been various modes adopted, such as an ivory plate and hammer &c., but the best pleximeter is the two first fingers of the left hand, percussing with the first and second fingers of the right. This will give a perfect idea of the elasticity of the walls of the thorax; and of the resonance of the internal viscera. A clear sound cannot be drawn from the chest by force; it is to be obtained by a smart sharp tap, made by moving the wrist only, while the shoulder remains fixed. No two chests sound precisely alike, and the best guide to the physician, is to compare the sounds of opposite portions of the chest.

Thus though two chests may differ, yet the opposite portions of the same chest, must if healthy, give out corresponding sounds. If on one side we perceive a dull sound, and on the other a clear strong one it is indicative of disease. Another important consideration is the circumstances modifying the sound. First the degree of fat that may be present. this ^{is} an inelastic body and does not readily transmit sound. Second the thickness of the muscular substance that may interfere, for instance over the pectoralis major muscle, or over the spine of the scapula, there will be but little sound on percussion. Third due allowance must be made for the

Modification of sound produced by organs that are found in one side of the body and not in the other. Again the power of transmitting sound in muscular tissue depends very much on its degree of tension. When relaxed it is a very indifferent one, while when tense, it becomes a tolerably good conductor. It is necessary to be very exact in these examinations: and for this purpose we would observe the following rules. First to percuss moderately and equally. Second to make the muscles of both sides equally tense. Third always to compare the sounds of the opposite sides. Another mode of diagnosing thoracic disease is auscultation. By this we understand listening to the sounds in the

chest, by means of the ear or an instrument. This is said to be an ancient mode of examination, but we believe we are indebted to Laennec for the first practical use of auscultation proper; so much so indeed, that but very little has been added to it since his time. Laennec used the stethoscope, but I believe the ear itself is now recommended instead of that instrument. There may be some circumstances under which a direct application of the ear to the chest of the patient might not be desirable, or proper; but these we think should form the only exceptions. There is however one advantage in the use of the stethoscope which is that it is useful where you

wish to localize a sound, in a spot where the ear would cover too much space; for instance in obtaining the sound of small cavities, the ear would take in the surrounding sounds, and thus produce confusion and uncertainty. In listening to the action of the lungs, what will we observe? At the commencement of the act of inspiration, the air rushing into the lungs, finds the vesicles contracted, and more or less empty; as the air enters these vesicles. elastic and yielding in their nature, they become distended at the same time that the ~~entering~~ air passes over their smooth internal surfaces. thus producing a soft expansive murmur. During expiration there is

a sudden stoppage of this murmur. This is because expiration is a much less forcible act than inspiration; the former being more a passive mechanical act, while the latter is more the result of direct effort. In listening to the sounds of the heart a difference will be perceived, between the action of this organ and that of the lungs. In the action of the heart we have two distinct sounds, the first twice as long as the second; these are followed by a pause, corresponding in length to the second sound of the heart. The first sound is caused chiefly by the contraction of the ventricles, and the closing of the auriculo ventricular valves, and the

propulsion of blood into the arteries. The second sound is mainly due to the sudden tightening of the semilunar valves, when they are pressed down across the orifice of the aorta and pulmonary artery. The pause is caused by the passive condition of the organ, after these two actions. These sounds have been said by some, to resemble the words "lone done". This would give us a very good idea of what we should expect to hear in the normal action of the heart. Now let us see what we would expect to find in an abnormal condition of the thoracic organs, during a few of the many diseases to which they are liable. And first in pneum-

onia; this is an inflammatory disease
 involving the substance of the lungs.
 The first symptoms are a sense of
 cold, or a well marked chill; fol-
 lowed by heat and inflammatory
 reaction, prostration of strength &c.
 Its rational signs are pain in the
 chest, cough, and dyspnoea. The pain
 is the result of concomitant inflam-
 mation of the pleura; this is referable
 to one spot just over the nipple;
 it feels as if a knife were run into
 the side, and is increased by pressure
 and by a full inspiration. There is
 more or less cough. This is to be
 expected, as bronchitis is usually
 the concomitant of pneumonia.
 The cough is suppressed and painful

because it cannot take place without putting the pleura upon the stretch, but in simple bronchitis the cough is loud and ringing. Another symptom is dyspnoea; this is easily accounted for. Breathing is for the purpose of oxygenising the blood. If the ~~air~~ cannot enter the lungs in due quantity, or if the blood is sent through the lungs with unusual rapidity, the necessity for rapid oxygenation, and for full and rapid breathing, increases. The difficulty increases with the progress of the disease; inspiration is imperfectly performed in consequence of the increase of pain, which an attempt to fill the lungs creates, and hence the breathing becomes

Short and more frequent. If we examine the chest in the region of the pain, we will have dullness on percussion; this is because the air does not enter freely into the lungs. If the patient takes a long inspiration a crepitant rattle will be heard toward the end of inspiration; this indicates inflammatory congestion of the lungs, and of course there will be more or less condensation as the disease advances. The expiration which in health is quite short, now becomes prolonged until finally it is as distinct as the inspiration. Both the respiratory sounds become harsh losing the vesicular character and finally assuming the dry blowing sound of bronchial respiration.

which is an unfavorable symptom. Another symptom of pneumonia is the expectoration; this is usually a viscid lumpy, and extremely tenacious mucus, of various shades of color, often of a dingy brick red or rusty hue, which changes into a mucopurulent or brown fluid, and in the latter stages of the disease, into a white or yellow matter streaked with blood, and less tenacious in its consistency. Very closely allied to and often connected with pneumonia, we have pleurisy. This consists strictly of an inflammation of the pleura with a disposition to the effusion of plastic lymph, filling up the cavity of the thorax, and thus producing compression of the

lungs. It is attended with fever, pain in the side, cough, and dyspnoea, dullness on percussion according to the extent of the disease. Some of the differences between pleurisy and pneumonia, are: in the former the cough is commonly dry, the pain acute and superficial, increased by percussion, by inspiration and coughing; in pneumonia on the contrary the cough is moist, the pain is deep seated and obtuse with a sense of suffocation and oppression. In pleurisy we rarely see blood mixed with the limited expectoration. In pneumonia it is very common, and the expectoration is very abundant. In pleurisy on percussion the dullness is more in the depending

portion of the thorax, the respiration is very indistinct, but sometimes the friction between the pleura may be heard. In pneumonia the respiration is loud and labored, with symptoms of extreme suffocation. Thus we might go on to an indefinite length and give the distinct characteristics of other diseases of the lungs; for they exist in great variety, all marked by some external symptoms, by which they can be distinguished and analysed, but still running into each other in such insensible gradations, that it requires the nicest discrimination to unravel the mysteries of these diseases in all their complicated forms. Then too there is another class of diseases of the

thorax to which we have barely alluded, which ought to claim a considerable share of our attention. These are diseases of the heart; considering the intimate relation which this organ sustains to the human economy, a knowledge of its diseases, and their external manifestations, becomes of the very first importance to physicians. Now if as we believe, it is true that nature in her boundless resources has a specific homoeopathic remedy for every organ, tissue, and fibre of the human economy, we have some idea of the vastness of the field of investigation which is spread out before us, into which we soon hope to enter.